

In re application of: Fritter et al.
Application No.: 10/618,401

AMENDMENTS IN THE CLAIMS

Please cancel without prejudice claims 1-83 and add claims 84-128 as indicated below in the listing of claims.

Listing of Claims

1-83. Cancel.

84. (New) A plurality of composite particles comprising:

a mixture of bentonite and expanded perlite formed into a plurality of homogeneously agglomerated composite particles suitable for use as an animal litter, wherein substantially each homogeneously agglomerated composite particle contains a percentage of bentonite and a percentage of expanded perlite.

85. (New) The plurality of composite particles recited in claim 84, further comprising at least one performance-enhancing active.

86. (New) The plurality of composite particles recited in claim 85, wherein said performance-enhancing active is activated carbon.

87. (New) The plurality of composite particles as recited in claim 85, wherein the individual particle size of the activated carbon is less than 500 μm .

88. (New) The plurality of composite particles as recited in claim 85, wherein the individual particle size of the activated carbon is less than 150 μm .

89. (New) The plurality of composite particles as recited in claim 85, wherein the individual particle size of the activated carbon ranges from 25-150 μm .

90. (New) The plurality of composite particles recited in claim 85, wherein the activated carbon is powdered activated carbon (PAC).

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91. (New) The plurality of composite particles as recited in claim 85, wherein the activated carbon is present in about 5 weight percent or less.

92. (New) The plurality of composite particles as recited in claim 85, wherein the activated carbon is present in about 1 weight percent or less.

93. (New) The plurality of composite particles recited in claim 85, wherein the activated carbon is present in about 0.5 weight percent or less.

94. (New) The plurality of composite particles recited in claim 85, wherein the activated carbon is present in about 0.3 weight percent or less.

95. (New) The plurality of composite particles as recited in claim 84, wherein said homogeneously agglomerated composite particles range in size from 100 μm to 10 mm.

96. (New) The plurality of composite particles as recited in claim 84, wherein said homogeneously agglomerated composite particles range in size from 400-1650 μm .

97. (New) The plurality of composite particles as recited in claim 84, wherein said homogeneously agglomerated composite particles have a bulk density less than 1.5 g/cc.

98. (New) The plurality of composite particles as recited in claim 84, wherein said homogeneously agglomerated composite particles have a bulk density between 0.25-0.85 g/cc.

99. (New) The plurality of composite particles as recited in claim 84, wherein said homogeneously agglomerated composite particles have having a bulk density between 0.35-0.5 g/cc.

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100. (New) The plurality of composite particles recited in claim 84, wherein said homogeneously agglomerated composite particles have a bulk density ranging from 0.27-0.39 g/cc.

101. (New) The plurality of composite particles recited in claim 84, wherein said homogeneously agglomerated composite particles have a hydraulic conductivity value of about 0.25 cm/s or less.

102. (New) The plurality of composite particles recited in claim 84, wherein said homogeneously agglomerated composite particles exhibit reduced sticking to a container when wetted relative to a non-agglomerated mixture under substantially similar conditions.

103. (New) The plurality of composite particles recited in claim 84, wherein the homogeneously agglomerated composite particles have a dusting attrition value of at most about 15% as measured by ASTM method E-728 Standard Test Method for Resistance to Attrition of Granular Carriers and Granular Pesticides.

104. (New) The plurality of composite particles recited in claim 84, wherein the homogeneously agglomerated composite particles have a malodor rating below about 15 as determined by a Malodor Sensory Method.

105. (New) The plurality of composite particles recited in claim 84, wherein the homogeneously agglomerated composite particles exhibit noticeably less odor after four days from contamination with animal waste as compared to a plurality of generally solid bentonite particles alone under substantially similar conditions.

106. (New) The plurality of composite particles recited in claim 84, wherein the homogeneously agglomerated composite particles have a liquid absorbing capability of from about 0.6 to about 2.5 liters of water per kilogram of particles.

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107. (New) A plurality of composite particles having improved odor reducing characteristics comprising:

a mixture of bentonite, expanded perlite, and activated carbon formed into a plurality of homogeneously agglomerated composite particles;

wherein pores are formed between the bentonite and expanded perlite such that at least some of the activated carbon positioned towards a center of the homogeneously agglomerated composite particle are in fluid or gaseous communication with an outer atmosphere surrounding said particle.

108. (New) A plurality of composite particles having improved clumping characteristics comprising:

a mixture of two absorbent materials selected from the group consisting of bentonite and expanded perlite formed into a plurality of homogeneously agglomerated composite particles, each composite particle having areas of more-water-soluble absorbent material and less-water-soluble absorbent material relative to each other, the areas of more-water-soluble absorbent material being capable of dislodging from the associated composite particle when wetted and becoming entrained between adjacent composite particles, the entrained absorbent material forming a bond between the adjacent composite particles.